



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/785,277	02/24/2004	Maurizio Tamburro	CM2601MC2	3843

27752 7590 05/18/2006

THE PROCTER & GAMBLE COMPANY  
INTELLECTUAL PROPERTY DIVISION  
WINTON HILL TECHNICAL CENTER - BOX 161  
6110 CENTER HILL AVENUE  
CINCINNATI, OH 45224

EXAMINER

PIERCE, JEREMY R

ART UNIT	PAPER NUMBER
----------	--------------

1771

DATE MAILED: 05/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/785,277

**Applicant(s)**

TAMBURRO ET AL.

**Examiner**

Jeremy R. Pierce

**Art Unit**

1771

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 13 April 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>3/24/06</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on April 13, 2006 has been entered.

### ***Response to Amendment***

2. Applicant's amendment filed on April 13, 2006 has been entered. Claim 1 has been amended. Claims 1-10 remain pending. The grounds of rejection are modified in light of the newly claimed limitation in claim 1.

### ***Claim Rejections - 35 USC § 102/103***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Art Unit: 1771

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-4, 9, and 10 are rejected under 35 U.S.C. 102(e) as being anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Ohnishi et al. (U.S. Patent No. 6,524,508).

With regard to claims 1, 3, and 4, Ohnishi et al. disclose chitosan containing acrylic fibers (Abstract). The fibers may be used in clothes or various other fabrics (column 1, lines 10-15), and such a fabric would constitute the claimed "absorbent member." The chitosan is formed into a salt and penetrated into the acrylic fibers so that it will not be washed away by subsequent post-treatments (column 7, lines 32-44). The average particle size of the chitosan is between 1 and 100 nm (column 4, lines 21-31). These chitosan containing fibers would comprise the claimed "region located on said absorbent member" because the fibers are present on the fabric. The article of clothing would be hydrophilic because Ohnishi et al. disclose that the acrylic fibers containing chitosan may be mixed with other known hydrophilic fibers such as cotton, rayon, and wool (column 6, lines 59-65). Also, the acrylic fibers that contain chitosan are also themselves hydrophilic because they swell in water (column 7, lines 25-31). Although Ohnishi et al. do not explicitly teach the limitation of 3 grams of chitosan material being soluble in 100 grams of water at 25 degrees C and one atmosphere, it is reasonable to presume that said limitations are inherent to the invention. Support for

Art Unit: 1771

said presumption is found because Applicant's Specification teaches that chitosan is made water-soluble by mixing it with an acid to form chitosan salt (page 10, lines 22-26). The Specification goes on to recite suitable acids to be formic acid and lactic acid (page 11, lines 4-5). Ohnishi et al. also teach that the chitosan is treated with acid to form a chitosan salt (column 7, lines 32-33). Ohnishi et al. teach preferred acids include both formic and lactic acids (column 8, lines 17-19). Since Ohnishi et al. use the same materials to form similar micro-particles of chitosan salt, it is reasonable to presume that the resulting properties of the materials are also similar. The burden is upon the Applicant to prove otherwise. *In re Fitzgerald*, 205 USPQ 594. In the alternative, the claimed solubility would obviously have been provided by the process disclosed by Ohnishi et al. Note *In re Best*, 195 USPQ 433, footnote 4 (CCPA 1977) as to the providing of this rejection under 35 USC 103 in addition to the rejection made above under 35 USC 102.

With regard to claims 2, 9, and 10, the region of chitosan particles will be present on the surface when the acrylic fibers are present on the surface of the fabric, and Ohnishi et al. disclose the fabric may be made entirely of the acrylic fibers (column 6, lines 48-51).

### ***Claim Rejections - 35 USC § 103***

6. Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kelkenberg (U.S. Patent No. 5,496,933) in view of Kellenberger et al. (U.S. Patent No. 4,699,823) and Sackmann et al. (U.S. Patent No. 5,635,569).

With regard to claims 1 and 3, Kelkenberg teaches providing chitosan salts as powder in hygienic articles (column 4, lines 20-24). Kelkenberg teaches the particles may be water soluble (column 3, lines 35-47). Kelkenberg discloses that the particle sizes are much less than 1 mm (column 2, line 25) and that some particles are smaller than 1 micron (column 2, lines 26-27). Although the reference discloses using particles smaller than 1 micron, Kelkenberg does not specifically teach the average particle size to be less than 300 microns. Kelkenberg is also silent as to the structure of the hygienic article.

Kellenberger et al. teach a diaper material comprising a topsheet, backsheet, and absorbent core (See Figure 2). The absorbent core is hydrophilic (column 4, line 43) and also comprises superabsorbent powder (column 5, lines 9-23). The fibers of the core material would comprise the claimed "absorbent member." Kellenberger et al. teaches that the absorbent particles in the outer region of the core should have particles averaging less than 300 microns in size (column 6, lines 47-49). Sackmann et al. also teach that smaller particle sizes in superabsorbent materials allows for more rapid liquid intake (column 3, lines 44-48). It would have been obvious to a person having ordinary skill in the art at the time of the invention to use the Kelkenberg chitosan salt particles at the average size of 300 microns or less in a diaper structure taught by Kellenberger et al. and to place those particles in the region adjacent the backsheet in order to provide a diaper with rapid intake towards the bottom of the core, as taught by both Kellenberger et al. and Sackmann et al.

Regarding the limitation of the chitosan material being soluble in 100 grams of water at 25 degrees C and one atmosphere, although Kelkenberg does not explicitly teach the limitation of solubility in those terms, it is reasonable to presume that said limitations are inherent to the invention. Support for said presumption is found in the use of similar materials (i.e. chitosan) and in the fact that Kelkenberg explicitly teaches the similar process of mixing the chitosan with acid in order to render it soluble in cold water (See Example 1, for instance). The burden is upon the Applicant to prove otherwise. *In re Fitzgerald*, 205 USPQ 594. In the alternative, the claimed solubility would obviously have been provided by the process disclosed by Kelkenberg (see column 3, lines 28-58).

With regard to claims 2, 9, and 10, one can see about 100% of the back surface of the diaper in Kellenberger et al. is covered by regions of superabsorbent particles (Figures 2-4 and 6). Additionally, it is noted that the surface need not be covered 100% with particles to meet the claim limitation, but only needs to be covered with 100% regions containing particles. With regard to claim 4, lowering the average particle size to between 10 and 800 nm is adjusting a result effective variable because Sackmann et al. teach that particle size is variable that affects the rate at which the particles absorb liquid. It would have been obvious to a person having ordinary skill in the art at the time of the invention to use chitosan salt particles with an average size of 10 to 800 nm, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272 (CCPA 1980). With regard to claim 5, Kelkenberg teaches only 20% of the chitin is acetylated (column 2,

Art Unit: 1771

lines 46-48). With regard to claim 6, the chitosan can be mixed with lactic acid (column 4, line 16). With regard to claim 7, Kellenberger et al. teach the absorbent core batt of the diaper is air-formed (column 4, lines 43-44). With regard to claim 8, Kellenberger et al. teach the superabsorbent should be present in the absorbent core in an amount between 12 and 15% by weight of the batt. Thus, the claimed amount of 0.1 to 200 g/m<sup>2</sup> of superabsorbent particles would be met so long as a person of ordinary skill in the art used an absorbent core that weighed between 0.8 and 1,333 g/m<sup>2</sup>. It would have been obvious to a person having ordinary skill in the art at the time of the invention to use between of 0.1 to 200 g/m<sup>2</sup> of superabsorbent particles in the absorbent core of Kellenberger et al., since such range is so broad that practicing outside of it would make it impractical to actually produce an absorbent article.

### ***Double Patenting***

7. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).



8. Claims 1-10 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-15 of U.S. Patent No. 6,833,487 in view of Kellenberger et al. and Sackmann et al. The claims of the '487 Patent disclose an absorbent member containing chitosan salt particles. With regard to claims 1, 3, and 4, the '487 Patent claims a disposable article having a topsheet, backsheet, and absorbent core having chitosan salt. Although the claims are silent as to the size of the particles and the placement in the layers, Kellenberger et al. teaches that the superabsorbent particles in the outer region of the core should have particles averaging less than 300 microns in size (column 6, lines 47-49). Sackmann et al. also teach that smaller particle sizes in superabsorbent materials allows for more rapid liquid intake (column 3, lines 44-48). It would have been obvious to a person having ordinary skill in the art at the time of the invention to use chitosan salt particles at the size of 300 microns or less, including between 10 and 800 nm, in the region adjacent the backsheet in order to provide a diaper with rapid intake towards the bottom of the core, as taught by both Kellenberger et al. and Sackmann et al. Regarding the limitation of chitosan solubility in water, such a property would be inherent to the chitosan salts claimed in the '487 Patent since the patent claims chitosan salt known to be soluble in water (claims 5 and 15). The burden is upon Applicant to prove otherwise. With regard to claims 2, 9, and 10, one can see about 100% of the back surface of the diaper in Kellenberger et al. is covered by regions of superabsorbent particles (Figures 2-4 and 6). With regard to claim 5, see claim 4 of the '487 Patent. With regard to claim 6, see claims 5 and 15 of the '487 Patent. With regard to claim 7, Kellenberger et al. teach the fibrous core batt is

Art Unit: 1771

air-formed (column 4, lines 43-44). With regard to claim 8, see claim 14 of the '487 Patent.

9. Claims 1-10 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-24 of U.S. Patent No. 6,867,287 in view of Kellenberger et al. and Sackmann et al. The claims of the '287 Patent disclose an absorbent member containing chitosan salt particles. With regard to claims 1, 3, and 4, the '487 Patent claims a disposable article having a topsheet, backsheet, and absorbent core having chitosan salt. Although the claims are silent as to the size of the particles and the placement in the layers, Kellenberger et al. teaches that the superabsorbent particles in the outer region of the core should have particles averaging less than 300 microns in size (column 6, lines 47-49). Sackmann et al. also teach that smaller particle sizes in superabsorbent materials allows for more rapid liquid intake (column 3, lines 44-48). It would have been obvious to a person having ordinary skill in the art at the time of the invention to use chitosan salt particles at the size of 300 microns or less, including between 10 and 800 nm, in the region adjacent the backsheet in order to provide a diaper with rapid intake towards the bottom of the core, as taught by both Kellenberger et al. and Sackmann et al. Regarding the limitation of chitosan solubility in water, such a property would be inherent to the chitosan salts claimed in the '487 Patent since the patent claims chitosan salt known to be soluble in water (claims 5 and 15). The burden is upon Applicant to prove otherwise. With regard to claims 2, 9, and 10, one can see about 100% of the back surface of the diaper in Kellenberger et al. is covered by regions of superabsorbent particles (Figures 2-4 and 6). With regard to

claim 5, see claim 3 of the '287 Patent. With regard to claim 6, see claim 4 of the '287 Patent. With regard to claim 7, Kellenberger et al. teach the fibrous core batt is air-formed (column 4, lines 43-44). With regard to claim 8, see claim 7 of the '287 Patent.

10. Claims 1-10 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-20 of U.S. Patent No. 6,887,564 in view of Kellenberger et al. and Sackmann et al. The claims of the '564 Patent disclose an absorbent member containing chitosan salt particles. With regard to claims 1, 3, and 4, the '487 Patent claims a disposable article having a topsheet, backsheet, and absorbent core having chitosan salt. Although the claims are silent as to the size of the particles and the placement in the layers, Kellenberger et al. teaches that the superabsorbent particles in the outer region of the core should have particles averaging less than 300 microns in size (column 6, lines 47-49). Sackmann et al. also teach that smaller particle sizes in superabsorbent materials allows for more rapid liquid intake (column 3, lines 44-48). It would have been obvious to a person having ordinary skill in the art at the time of the invention to use chitosan salt particles at the size of 300 microns or less, including between 10 and 800 nm, in the region adjacent the backsheet in order to provide a diaper with rapid intake towards the bottom of the core, as taught by both Kellenberger et al. and Sackmann et al. Regarding the limitation of chitosan solubility in water, such a property would be inherent to the chitosan salts claimed in the '487 Patent since the patent claims chitosan salt known to be soluble in water (claims 5 and 15). The burden is upon Applicant to prove otherwise. With regard to claims 2, 9, and 10, one can see about 100% of the back surface of the diaper in Kellenberger et al.

Art Unit: 1771

is covered by regions of superabsorbent particles (Figures 2-4 and 6). With regard to claim 5, see claim 4 of the '564 Patent. With regard to claim 6, see claim 8 of the '564 Patent. With regard to claim 7, Kellenberger et al. teach the fibrous core batt is air-formed (column 4, lines 43-44). With regard to claim 8, see claim 9 of the '564 Patent.

11. Claims 1-10 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-12 of copending Application No. 10/785,464. Although the conflicting claims are not identical, they are not patentably distinct from each other because the '464 Application claims a disposable absorbent article that comprises the claimed absorbent member having chitosan salt particles with similar particle size ranges. Also, dependent claims 2-12 in the '464 Application are similar to claims 2-10 of the present application.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

12. Claims 1-4, 6, 7, 9, and 10 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-20 of copending Application No. 11/021,634 in view of Kellenberger et al. With regard to claims 1, 3, and 4, the '634 Application claims an absorbent member with chitosan salts having similar particle diameter. The '634 Application does not disclose the particles to be contained within an absorbent member. Kellenberger et al. teach that absorbent core material comprising absorbent particles should be sandwiched between a topsheet and a backsheet in order to form a diaper. It would have been obvious to a person having ordinary skill in the art at the time of the invention to use the absorbent core of

Art Unit: 1771

the '634 Application between a topsheet and a backsheet in order to form a diaper, as taught by both Kellenberger et al. Regarding the limitation of chitosan solubility in water, such a property would be inherent to the chitosan salts claimed in the '634 Application since the it claims chitosan salt known to be soluble in water (claim 4). With regard to claims 2, 9, and 10, one can see about 100% of the back surface of the diaper in Kellenberger et al. is covered by regions of superabsorbent particles (Figures 2-4 and 6). With regard to claim 6, see claim 4 of the '634 Application. With regard to claim 7, Kellenberger et al. teach the fibrous core batt is air-formed (column 4, lines 43-44).

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

### ***Response to Arguments***

13. Applicant's arguments filed April 13, 2006 have been fully considered but they are not persuasive.

14. Applicant argues that Ohnishi et al. fail to disclose chitosan that dissolves in water and that Ohnishi et al. dissolve the chitosan in the presence of an acid. However, Ohnishi et al. teach dissolving the chitosan in the presence of an acid in order to form a chitosan salt (column 7, lines 32-33). Applicant's claims require that a "chitosan salt" to be soluble in water, not chitosan. Ohnishi et al. teach preferred acids include both formic and lactic acids (column 8, lines 17-19). These are similar acids used by Applicant (see present claim 6, for instance), so it is reasonable to presume that the

Art Unit: 1771

chitosan salt formed by Ohnishi et al. would inherently meet the claimed solubility limitation, as set forth above.

15. Applicant argues that Ohnishi et al. fail to disclose an absorbent member comprising at least one region located on said absorbent member with particles of chitosan salt because the particles of chitosan in Ohnishi et al. are dispersed within the interior of the individual fibers. The Examiner agrees that the chitosan particles in Ohnishi et al. are dispersed within the fibers. However, one can read the fabric of Ohnishi et al. to comprise the claimed "absorbent member." Upon doing so, then a fiber comprising the chitosan salt can be read to meet the claim limitation of "at least one region located on said absorbent member with particles of ... chitosan" because the fiber of Ohnishi et al. would be located on the fabric in a region.

16. Applicant argues that Ohnishi et al. do not disclose an absorbent member because they disclose individual fibers arranged to form a spun yarn, woven cloth, and nonwoven fabric. However, it is unclear how the recitation of an "absorbent member" is outside the scope of yarn or a fabric. A fabric can absorb so it is an absorbent member.

17. Applicant argues Ohnishi et al. do not disclose the affinity to water of the fibers disclosed therein. However, Ohnishi et al. teach the fabric material can comprise cotton fibers (column 6, line 63) so the absorbent member of Ohnishi et al. is hydrophilic. Additionally, Ohnishi et al. teach the acrylic fiber having the chitosan particles dispersed therein swells in water (column 7, line 27), so they too are hydrophilic.

18. Applicant argues that Kelkenberg, Kellenberger et al., and Sackmann, fail to teach chitosan with the claimed solubility. However, Kelkenberg uses the same process

Art Unit: 1771

disclosed by Applicant of mixing the chitosan with acid in order to render it soluble in water. It is therefore reasonable to presume the claimed property to be inherent to the material of Kelkenberg absent evidence proving otherwise.

19. Applicant argues Kelkenberg fails to teach particles of chitosan on the absorbent member. However, Kelkenberg teaches incorporating the particles into cellulose containing absorbent, hygienic articles (column 4, lines 18-24). The absorbent member would be the fibers of the cellulosic core within a hygienic article.

20. Applicant argues that Kelkenberg fails to disclose particles with a mean diameter of not more than 300 microns. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). In this case, Kelkenberg lays the groundwork for using smaller particle size by disclosing the chitosan particles should have a particle size a lot lower than 500 microns (column 3, lines 4-6). Kellenberger et al. and Sackmann et al. are used to fortify the idea that using particle sizes within the claimed range are well known and provide various benefits, as set forth above.

21. Applicant argues that Kellenberger et al. and Sackmann et al. fail to teach chitosan and those references use superabsorbent polymers. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. Kellenberger et al. was used to show the structure of a hygienic article and

Art Unit: 1771

both Kellenberger et al. and Sackmann et al. were used for the teaching of smaller particle size in superabsorbents. Kelkenberg is used for the teaching of chitosan salt.

22. Concerning the double patenting rejections, Applicant argues that US 6,833,487, US 6,867,287, and US 6,887,564 fail to claim particles with a mean diameter of not more than 300 microns and wherein at least 3 grams of said chitosan material is soluble in 100 grams of water at 25 degrees C and one atmosphere. Applicant also argues that Kellenberger et al. and Sackmann et al. fail to teach using chitosan and instead use superabsorbent polymer. These arguments attack the references individually, rather than their combination. But one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. There is a reasonable basis set forth above in the rejection for believing that the newly claimed solubility property is inherent to the materials of the '487, '287, and '564 Patents.

23. Applicant argues that Kellenberger et al. and Sackmann et al. are not relevant to the behavior of particles of chitosan. However, both Kellenberger et al. and Sackmann et al. teach small particle size of superabsorbent material. Chitosan salt is a superabsorbent material. Therefore, the references are combinable with the Kelkenberg reference and the '487, '287, and '564 Patents.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeremy R. Pierce whose telephone number is (571)

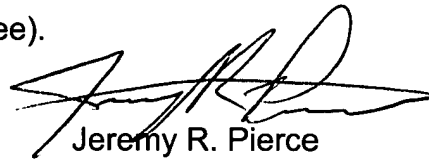


Art Unit: 1771

272-1479. The examiner can normally be reached on normal business hours, but works flextime hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (571) 272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jeremy R. Pierce  
Examiner  
Art Unit 1771

May 15, 2006